

Remarks

In prior art, several devices have been introduced for supplying make - up air to the forced air heating system as is shown in Kogut U.S . Patent no. 4,509,681. These air intake devices are known to use the standard screen with 1/4" opening and are not removable for cleaning. Screens of this nature are known to plug up with debris, freeze up with frost and snow, also allowing spiders, flies and insects, duct and allergens to enter the furnace system.

Hence one skilled in the art in heating is not skilled in the art of filtration. Due to the problems of the outside elements, building codes, a special filter and housing had to be researched and developed.

The engineering requirements are a frame and a screen made of corrosion resistant material and a filter media would freeze up and not allow 10% of the make - up air that's required.

The acquire the 10% air flow we use a 3/8" this material into an aluminum frame with a raised pattern grill. In the winter the grill allows the frost to build up and keeping it of the media, leaving openings for the air to flow through evaporation of the frost is similar to a self - defrosting fridge as the temperature is the same on both sides of the filter.